CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Enthalpy Analytical, LLC
2714 Exchange Drive
Wilmington, NC 28405

Fulfills the requirements of

ISO/IEC 17025:2017

and the

U.S. Department of Defense (DoD) Quality Systems Manual for Environmental Laboratories (DoD QSM V6.0)

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 15 January 2028

Certificate Number: ADE-2835

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

and

U.S. Department of Defense (DoD) Quality Systems Manual for Environmental Laboratories (DoD QSM V 6.0)

Enthalpy Analytical, LLC

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TESTING

ISO/IEC 17025 Accreditation Granted: **14 January 2026**

Certificate Number: **ADE-2835** Certificate Expiry Date: **15 January 2028**

Environmental

Non-Potable Water		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 1633A	Perfluorobutanoic acid (PFBA)
LC/MS/MS	EPA 1633A	Perfluoropentanoic acid (PFPeA)
LC/MS/MS	EPA 1633A	Perfluorobutanesulfonic acid (PFBS)
LC/MS/MS	EPA 1633A	Perfluorohexanoic acid (PFHxA)
LC/MS/MS	EPA 1633A	Perfluoroheptanoic acid (PFHpA)
LC/MS/MS	EPA 1633A	Perfluorohexanesulfonoic acid (PFHxS)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2-FTS)
LC/MS/MS	EPA 1633A	Perfluorooctanoic acid (PFOA)
LC/MS/MS	EPA 1633A	Perfluoroheptanesulfonic acid (PFHpS)
LC/MS/MS	EPA 1633A	Perfluorooctanesulfonic acid (PFOS)
LC/MS/MS	EPA 1633A	Perfluorononanoic acid (PFNA)
LC/MS/MS	EPA 1633A	Perfluorodecanoic acid (PFDA)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2-FTS)
LC/MS/MS	EPA 1633A	Perfluorooctane sulfonamide (PFOSA)
LC/MS/MS	EPA 1633A	Perfluorodecanesulfonic acid (PFDS)
LC/MS/MS	EPA 1633A	Perfluoroundecanoic acid (PFUnA)

Non-Potable Water		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 1633A	Perfluorododecanoic acid (PFDoA)
LC/MS/MS	EPA 1633A	Perfluorotridecanoic acid (PFTrDA)
LC/MS/MS	EPA 1633A	Perfluorotetradecanoic acid (PFTeDA)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamide (NMeFOSA)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamide (NEtFOSA)
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)
LC/MS/MS	EPA 1633A	Perfluoropentane sulfonic acid (PFPeS)
LC/MS/MS	EPA 1633A	Perfluorononane sulfonic acid (PFNS)
LC/MS/MS	EPA 1633A	Hexafluoropropylene oxide dimer acid (HFPO-DA)
LC/MS/MS	EPA 1633A	Perfluorododecanesulfonic acid (PFDoS)
LC/MS/MS	EPA 1633A	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
LC/MS/MS	EPA 1633A	Perfluoro-3-methoxypropanoic acid (PFMPA)
LC/MS/MS	EPA 1633A	Perfluoro-4-methoxybutanoic acid (PFMBA)
LC/MS/MS	EPA 1633A	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
LC/MS/MS	EPA 1633A	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
LC/MS/MS	EPA 1633A	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
LC/MS/MS	EPA 1633A	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)
LC/MS/MS	EPA 1633A	3-Perfluoropropyl propanoic acid (3:3FTCA)
LC/MS/MS	EPA 1633A	2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)
LC-MS-MS	EPA 1633A	3-Perfluoroheptyl propanoic acid (7:3FTCA)
LC/MS/MS	ASTM D8421	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
LC/MS/MS	ASTM D8421	2H,2H,3H,3H-Perfluorohexanoic Acid (3:3 FTCA)
LC/MS/MS	ASTM D8421	4:2 Fluorotelomer sulfonic acid (4:2 FTS)
LC/MS/MS	ASTM D8421	2H,2H,3H,3H-Perfluorooctanoic Acid (5:3 FTCA)
LC/MS/MS	ASTM D8421	6:2 Fluorotelomer sulfonic acid (6:2 FTS)
LC/MS/MS	ASTM D8421	2H-perfluoro-2-octenoic acid (FHUEA)

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Non-Potable Water		
Technology	**Method**	**Analyte**
LC/MS/MS	ASTM D8421	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)
LC/MS/MS	ASTM D8421	8:2 Fluorotelomer sulfonic acid (8:2 FTS)
LC/MS/MS	ASTM D8421	2H-perfluoro-2-decenoic acid (FOUEA)
LC/MS/MS	ASTM D8421	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
LC/MS/MS	ASTM D8421	4,8-dioxa-3H-perfluorononanoic acid (ADONA)
LC/MS/MS	ASTM D8421	Hexafluoropropylene oxide dimer acid (HFPO-DA)
LC/MS/MS	ASTM D8421	Bis(trifluoromethane)sulfonimide (HQ-115)
LC/MS/MS	ASTM D8421	N-Ethylperfluorooctanesulfonamide (NEtFOSA)
LC/MS/MS	ASTM D8421	N-Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
LC/MS/MS	ASTM D8421	N-Methylperfluorooctanesulfonamidoethanol (NMeFOSE)
LC/MS/MS	ASTM D8421	N-Methylperfluorooctanesulfonamide (NMeFOSA)
LC/MS/MS	ASTM D8421	N-Methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
LC/MS/MS	ASTM D8421	N-Ethylperfluorooctanesulfonamidoethanol (NEtFOSE)
LC/MS/MS	ASTM D8421	Perfluoro-3,6-dioxaheptanoic acid (NFDHA)
LC/MS/MS	ASTM D8421	Perfluorobutanoic acid (PFBA)
LC/MS/MS	ASTM D8421	Perfluorobutanesulfonic acid (PFBS)
LC/MS/MS	ASTM D8421	Perfluorodecanoic acid (PFDA)
LC/MS/MS	ASTM D8421	Perfluorododecanoic acid (PFDoA)
LC/MS/MS	ASTM D8421	Perfluorododecanesulfonic acid (PFDoS)
LC/MS/MS	ASTM D8421	Perfluorodecanesulfonic acid (PFDS)
LC/MS/MS	ASTM D8421	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)
LC/MS/MS	ASTM D8421	Perfluoroheptanoic acid (PFHpA)
LC/MS/MS	ASTM D8421	Perfluoroheptanesulfonic acid (PFHpS)
LC/MS/MS	ASTM D8421	Perfluorohexanoic acid (PFHxA)
LC/MS/MS	ASTM D8421	Perfluorohexanesulfonic acid (PFHxS)
LC/MS/MS	ASTM D8421	Perfluoro-4-methoxybutanoic acid (PFMBA)
LC/MS/MS	ASTM D8421	Perfluoro-3-methoxypropanoic acid (PFMPA)
LC/MS/MS	ASTM D8421	Perfluorononanoic acid (PFNA)
LC/MS/MS	ASTM D8421	Perfluorononanesulfonic acid (PFNS)
LC/MS/MS	ASTM D8421	Perfluorooctanoic acid (PFOA)
LC/MS/MS	ASTM D8421	Perfluorooctanesulfonic acid (PFOS)
LC/MS/MS	ASTM D8421	Perfluorooctanesulfonamide (PFOSA)

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Non-Potable Water		
Technology	**Method**	**Analyte**
LC/MS/MS	ASTM D8421	Perfluoropentanoic acid (PFPeA)
LC/MS/MS	ASTM D8421	Perfluoropentanesulfonic acid (PFPeS)
LC/MS/MS	ASTM D8421	Pentafluorpropanoic acid (PFPrA)
LC/MS/MS	ASTM D8421	Perfluorotetradecanoic acid (PFTreA)
LC/MS/MS	ASTM D8421	Perfluorotridecanoic acid (PFTriA)
LC/MS/MS	ASTM D8421	Perfluoroundecanoic acid (PFUnA)
Preparation	**Method**	**Type**
SPE	EPA1633A	PassiveX Sampling Extraction

Solid and Chemical Materials		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 1633A	Perfluorobutanoic acid (PFBA)
LC/MS/MS	EPA 1633A	Perfluoropentanoic acid (PFPeA)
LC/MS/MS	EPA 1633A	Perfluorobutanesulfonic acid (PFBS)
LC/MS/MS	EPA 1633A	Perfluorohexanoic acid (PFHxA)
LC/MS/MS	EPA 1633A	Perfluoroheptanoic acid (PFHpA)
LC/MS/MS	EPA 1633A	Perfluorohexanesulfonoic acid (PFHxS)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2-FTS)
LC/MS/MS	EPA 1633A	Perfluorooctanoic acid (PFOA)
LC/MS/MS	EPA 1633A	Perfluoroheptanesulfonic acid (PFHpS)
LC/MS/MS	EPA 1633A	Perfluorooctanesulfonic acid (PFOS)
LC/MS/MS	EPA 1633A	Perfluorononanoic acid (PFNA)
LC/MS/MS	EPA 1633A	Perfluorodecanoic acid (PFDA)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2-FTS)
LC/MS/MS	EPA 1633A	Perfluorooctane sulfonamide (PFOSA)
LC/MS/MS	EPA 1633A	Perfluorodecanesulfonic acid (PFDS)
LC/MS/MS	EPA 1633A	Perfluoroundecanoic acid (PFUnA)
LC/MS/MS	EPA 1633A	Perfluorododecanoic acid (PFDoA)
LC/MS/MS	EPA 1633A	Perfluorotridecanoic acid (PFTrDA)
LC/MS/MS	EPA 1633A	Perfluorotetradecanoic acid (PFTeDA)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)

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Solid and Chemical Materials		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamide (NMeFOSA)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamide (NEtFOSA)
LC/MS/MS	EPA 1633A	N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)
LC/MS/MS	EPA 1633A	N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)
LC/MS/MS	EPA 1633A	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid (4:2 FTS)
LC/MS/MS	EPA 1633A	Perfluoropentane sulfonic acid (PFPeS)
LC/MS/MS	EPA 1633A	Perfluorononane sulfonic acid (PFNS)
LC/MS/MS	EPA 1633A	Hexafluoropropylene oxide dimer acid (HFPO-DA)
LC/MS/MS	EPA 1633A	Perfluorododecanesulfonic acid (PFDoS)
LC/MS/MS	EPA 1633A	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
LC/MS/MS	EPA 1633A	Perfluoro-3-methoxypropanoic acid (PFMPA)
LC/MS/MS	EPA 1633A	Perfluoro-4-methoxybutanoic acid (PFMBA)
LC/MS/MS	EPA 1633A	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
LC/MS/MS	EPA 1633A	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
LC/MS/MS	EPA 1633A	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
LC/MS/MS	EPA 1633A	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)
LC/MS/MS	EPA 1633A	3-Perfluoropropyl propanoic acid (3:3FTCA)
LC/MS/MS	EPA 1633A	2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)
LC-MS-MS	EPA 1633A	3-Perfluoroheptyl propanoic acid (7:3FTCA)

Drinking Water		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 537.1 v2	NEtFOSAA (N-ethyl perfluorooctanesulfonamidoacetic acid)
LC/MS/MS	EPA 537.1 v2	NMeFOSAA (N-methyl perfluorooctanesulfonamidoacetic acid)
LC/MS/MS	EPA 537.1 v2	PFBS (Perfluorobutanesulfonic acid)
LC/MS/MS	EPA 537.1 v2	PFDA (Perfluorodecanoic acid)
LC/MS/MS	EPA 537.1 v2	PFDoA (Perfluorododecanoic acid)

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Drinking Water		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 537.1 v2	PFHpA (Perfluoroheptanoic acid)
LC/MS/MS	EPA 537.1 v2	PFHxS (Perfluorohexanesulfonoic acid)
LC/MS/MS	EPA 537.1 v2	PFHxA (Perfluorohexanoic acid)
LC/MS/MS	EPA 537.1 v2	PFNA (Perfluorononanoic acid)
LC/MS/MS	EPA 537.1 v2	PFOS (Perfluorooctanesulfonic acid)
LC/MS/MS	EPA 537.1 v2	PFOA (Perfluorooctanoic acid)
LC/MS/MS	EPA 537.1 v2	PFTA (Perfluorotetradecanoic acid)
LC/MS/MS	EPA 537.1 v2	PFTrDA (Perfluorotridecanoic acid)
LC/MS/MS	EPA 537.1 v2	PFUnA (Perfluoroundecanoic acid)
LC/MS/MS	EPA 537.1 v2	HFPO-DA Hexafluoropropylene oxide dimer acid
LC/MS/MS	EPA 537.1 v2	11Cl-PF3OUdS 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid
LC/MS/MS	EPA 537.1 v2	9Cl-PF3ONS 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
LC/MS/MS	EPA 537.1 v2	ADONA 4,8-dioxa-3H-perfluorononanoic acid
LC/MS/MS	EPA 533	(PFBS) Perfluorobutanesulfonic acid
LC/MS/MS	EPA 533	(PFDA) Perfluorodecanoic acid
LC/MS/MS	EPA 533	(PFDoA) Perfluorododecanoic acid
LC/MS/MS	EPA 533	(PFHpA) Perfluoroheptanoic acid
LC/MS/MS	EPA 533	(PFHxS) Perfluorohexanesulfonoic acid
LC/MS/MS	EPA 533	(PFHxA) Perfluorohexanoic acid
LC/MS/MS	EPA 533	(PFNA) Perfluorononanoic acid
LC/MS/MS	EPA 533	(PFOS) Perfluorooctanesulfonic acid
LC/MS/MS	EPA 533	(PFOA) Perfluorooctanoic acid
LC/MS/MS	EPA 533	(PFUnA) Perfluoroundecanoic acid
LC/MS/MS	EPA 533	(HFPO-DA) Hexafluoropropylene oxide dimer acid
LC/MS/MS	EPA 533	(11Cl-PF3OUdS) 11-chloroeicosafluoro-3oxaundecane-1-sulfonic acid
LC/MS/MS	EPA 533	(9Cl-PF3ONS) 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
LC/MS/MS	EPA 533	(ADONA) 4,8-dioxa-3H-perfluorononanoic acid
LC/MS/MS	EPA 533	(NFDHA) Nonafluoro-3,6-dioxaheptanoic acid
LC/MS/MS	EPA 533	(PFBA) Perfluorobutanoic acid
LC/MS/MS	EPA 533	(8:2 FTS) 1H,1H, 2H, 2H-Perfluorodecane sulfonic acid
LC/MS/MS	EPA 533	(PFEESA) Perfluoro(2-ethoxyethane) sulfonic acid
LC/MS/MS	EPA 533	(PFHpS) Perfluoroheptanesulfonic acid

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Drinking Water		
Technology	**Method**	**Analyte**
LC/MS/MS	EPA 533	(4:2 FTS) 1H,1H, 2H, 2H-Perfluorohexane sulfonic acid
LC/MS/MS	EPA 533	(PFMPA) Perfluoro-3-methoxypropanoic acid
LC/MS/MS	EPA 533	(PFMBA) Perfluoro-4-methoxybutanoic acid
LC/MS/MS	EPA 533	(6:2 FTS) 1H,1H, 2H, 2H-Perfluorooctane sulfonic acid
LC/MS/MS	EPA 533	(PFPeA) Perfluoropentanoic acid
LC/MS/MS	EPA 533	(PFPeS) Perfluoropentanesulfonic acid

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